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DATE MAILED: 03/17/2008

NOTICE OF ALLOWANCE AND FEE(S) DUE

37003 7590 03/17/2008
SCHLUMBERGER-DOLL RESEARCH
AATTN: INTELLECTUAL PROPERTY LAW DEPARTMENT
P.O. BOX 425045

EXAMINER			
SUNG, CHRISTINE			
ART UNIT PAPER NUMBER			
2884			

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/540,967	10/20/2005	John Barry Fitzgerald	57.0533 US PCT	6100

TITLE OF INVENTION: METHOD AND APPARATUS FOR MONITORING DEPOSITION OF SOLIDS IN PIPELINES USING A PLURALITY OF RADIATION SOURCES POINTING TO A UNIQUE DETECTOR

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1440	\$300	\$0	\$1740	06/17/2008

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 1SI. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

HOW TO REPLY TO THIS NOTICE:

CAMBRIDGE, MA 02142

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FFE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: Mail Mail Stop ISSUE FEE

Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450 or Fax (571)-273-2885

INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where

appropriate. All further indicated unless corrects maintenance fee notifica	correspondence includir ed below or directed of tions.	ng the Patent, advance on nerwise in Block 1, by (rders and notification of a) specifying a new co	of m scresp	aintenance fees woondence address;	ill be and/or	mailed to the current (b) indicating a sepa	correspondence a rate "FEE ADDR	ddress as ESS" for
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APPLICATION NO.	FILING DATE		FIRST NAMED INVENT	FOR		ATTO	RNEY DOCKET NO.	CONFIRMATION	NO.
10/540,967	10/20/2005	•	John Barry Fitzgeral	ld		5	7.0533 US PCT	6100	
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nonprovisional	NO	\$1440	\$300		\$0		\$1740	06/17/20	08
EXAM	IINER	ART UNIT	CLASS-SUBCLASS						
SUNG, CI		2884	250-253000						
I. Change of correspondence address or indication of "Fee Address" (37 CFR I.363). Change of correspondence address (or Change of Correspondence Address form FITOSH 212) attached. "Fee Address" indication for "Fee Address" Indication form FITOSH 47; Rev 03-92 or more recent) attached. Use of a Customer Number is required.			(I) the names of up or agents OR, altern (2) the name of a si registered attorney 2 registered patent:	inting on the patent front page, list ames of up to 1 gegletered patent attorneys OR, alternatively, ame of a single firm (having as a member a d atorney or agent) and the names of up to red patent attorneys or agents. If no name is anne will be printed.					
(A) NAME OF ASSI	less an assignee is ident h in 37 CFR 3.11. Comp GNEE	A TO BE PRINTED ON iffed below, no assignee pletion of this form is NO categories (will not be p	data will appear on th T a substitute for filing (B) RESIDENCE: (C.	e pai an a	tent. If an assign ssignment. and STATE OR C	OUNT	'RY)		
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	o small entity discount	permitted)	Payment by credit		l. Form PTO-2038	is atta	ched.		
Advance Order -	# of Copies		The Director is her overpayment, to D	reby lepos	authorized to char it Account Numbe	ge the	required fee(s), any de (enclose a	ficiency, or credit a extra copy of this	any s form).
5. Change in Entity Sta	tus (from status indicate is SMALL ENTITY stati		b. Applicant is no	long	er claiming SMAI	LEN	FITY status. Sec 37 CI	R 1.27(g)(2).	
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37003 7.	590 03/17/2008	EXAMINER				
SCHLUMBERG	ER-DOLL RESEAR	SUNG, CHRISTINE				
	CTUAL PROPERTY I	ART UNIT	PAPER NUMBER			
P.O. BOX 425045 CAMBRIDGE, M		2884				

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)

(application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 280 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 280 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

Notice of Allowability

Application No.	Applicant(s)
0/540,967	FITZGERALD, JOHN BARRY
xaminer	Art Unit
CHRISTINE SUNG	2884

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS. This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

- This communication is responsive to 12/21/2007.
- The allowed claim(s) is/are 1-4 and 6-17.
- 3. Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) X All b) ☐ Some* c) ☐ None of the:
 - 1. T Certified copies of the priority documents have been received.
 - 2. Certified copies of the priority documents have been received in Application No.
 - 3. X Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
 - * Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application. THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

- A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
- CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) Including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) hereto or 2) to Paper No./Mail Date
 - (b) including changes required by the attached Examiner's Amendment / Comment or in the Office action of

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

6.

DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- 1. | Notice of References Cited (PTO-892)
- 2. Notice of Draftperson's Patent Drawing Review (PTO-948)
- Information Disclosure Statements (PTO/SB/08). Paper No./Mail Date
- 4. T Examiner's Comment Regarding Requirement for Deposit of Biological Material
- 5. Notice of Informal Patent Application
- Interview Summary (PTO-413), Paper No./Mail Date
- 7. T Examiner's Amendment/Comment
- Examiner's Statement of Reasons for Allowance
- Other .

Application/Control Number: 10/540,967 Page 2

Art Unit: 2884

Response to Amendment

1. The amendment filed on December 21, 2007 has been accepted and entered.

Allowable Subject Matter

- Claims 1-4, 6-17 are allowed.
- 3. The following is an examiner's statement of reasons for allowance:
- Regarding claims 1-4, 6-13, the allowable subject matter disclosed in a prior office action dated 9/26/2007 was incorporated into the independent claim.
- 5. Similarly, regarding claims 14-15, none of the prior art of record specifies or makes obvious an apparatus for monitoring flow in a pipe, namely the photon sources positioned around the periphery of the pipe where each of the sources are of different photon energies, in combination with the other claimed elements. References such as Hasegawa or Farren disclose measuring the density from a plurality of sources with the same energy.
- 6. Similarly, regarding claim 16, none of the prior art of record specifies or makes obvious an apparatus for monitoring flow in a pipe, namely the photon sources positioned around the periphery of the pipe where each of the sources are of different photon energies, in combination with the other claimed elements. References such as Hasegawa or Farren disclose measuring the density from a plurality of sources with the same energy.
- 7. Similarly, regarding claim 17, none of the prior art of record specifies or makes obvious a method of monitoring, namely providing one or more additional photon sources positioned around the periphery of the pipe to form chords, where each of the sources are different photon energies, in combination with the other claimed steps. References such as Hasegawa or Farren disclose measuring the density from a plurality of sources with the same energy.

Application/Control Number: 10/540,967

Art Unit: 2884

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance"

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CHRISTINE SUNG whose telephone number is (571)272-2448. The examiner can normally be reached on Monday- Friday 9-5 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Porta can be reached on 571-272-2444. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Christine Sung/ Primary Examiner Art Unit 2884